PROPERTY PLANNING COMMON ELEMENTS

COMPONENTS OF MASTER PLANS

HABITATS AND THEIR MANAGEMENT

Conifer Plantations

Description

Conifer plantations occur throughout the state, although they are especially abundant in the Central Sands, Northwest and Northeast Sands and Northern Highland. They are a significant part of forested landscapes in many areas and receive a high degree of management attention. Red pine is the most common planted species, but plantations can also contain white pine, jack pine, white spruce, and the non-native Scots pine, Norway spruce, and European larch.

The compositional and structural diversity of plantations typically is low, although this can vary depending on presence of secondary species (non-target trees, shrubs, and herbaceous plants), as well as on site history, site preparation, and management regime. Conifer plantations can provide coniferous cover in areas where this has been diminished, as well as reduce the amount of 'hard edge' (sharp transitions between cover types) and increase effective forest patch size in areas with significant forest fragmentation.

Ecological Landscape Opportunities

Ecological Landscape	Opportunity*
Central Sand Plains	M
Northeast Sands	M
Northern Highland	M
Northwest Sands	M
Forest Transition	I
North Central Forest	I
Northwest Lowlands	I
Central Lake Michigan Coastal	P
Central Sand Hills	P
Northern Lake Michigan Coastal	P
Southeast Glacial Plains	P
Southern Lake Michigan Coastal	P
Southwest Savanna	P
Superior Coastal Plain	P
Western Coulee and Ridges	P
Western Prairie	P

*M = Major: major opportunity exists in this Landscape; many significant occurrences are recorded or restorations likely to be successful.

I = Important: several occurrences important to maintaining the community in the state occur in this Landscape.

P = Present: community is present in the Landscape, but better opportunities exist elsewhere.

Rare Species

To learn more about Species of Greatest Conservation Need (SGCN) associated with conifer plantations, visit the Northern Forest communities page and click on "Conifer Plantation".

Management Techniques

- Clearcut
- Direct seeding and planting
- Overstory removal
- Seed Tree
- Shelterwood
- Site preparation
- Intermediate treatments
- Pesticide treatments

Management Considerations

- If converting conifer plantations to deciduous species, use seed tree, shelterwood, or overstory removal harvests at rotation age to allow advanced hardwood regeneration to re-vegetate the stand. While the stands are retained, use even-aged practices and thinnings to maintain stand health, vigor, and quality.
- If maintaining plantations, thin on a recurring basis (8-20-year intervals) according to guidance in the *Silviculture and Forest Aesthetics Handbook*.
- Use lateral branch pruning to improve sawlog quality.
- Plant conifer plantations as needed to maintain conifers on sites. Hand or machine plant nursery stock seedlings following site preparation by mechanical and herbicide application if required. Use hand or herbicide release following planting to maintain growth and vigor of planted pine trees and increase survival of planted trees. Regeneration checks will be made following planting at 3-, 5-, 10-, and 20-year intervals.
- When maintaining existing plantations or establishing new ones, consider using management techniques that will increase compositional and structural diversity to benefit wildlife, including rare species. This can include planting or maintaining an appropriate mix of species; using variable density thinning with gap creation to encourage recruitment of multiple layers of vegetation; retention of large trees, cavity trees, snags, and coarse woody debris; and applying extended rotation management to some stands or portions of stands.